Abstract

The present invention discloses an interactive IR electronic white board, around which is an infrared emitting and receiving array. An output port of a column driver of emitting array is connected to high frequency modulating signal generator, and an output port of a column driver of the receiving array is connected to a microprocessor through a signal receiving circuit and an analog-digital converter A/D. The emitting array and the receiving array are connected to emitting and the receiving driver through emitting and receiving driver lines, and the emitting driver and the receiving driver are connected with the microprocessor through address bus. The present invention utilizes the Inverse Square Law of optical theory and the linear direct ratio relation between the quantity change of light particles received by an infrared receiving diode and the output voltage of the receiving diode to associate the output voltage of the receiving diode with the interrupted width of the infrared light path, so that it can calculate the coordinate of interrupter accurately and improve the resolution of infrared scanning. The present invention can not only distribute pens or erase, but can be used by plurality of users at the same time as well.